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WHAT IS CLAIMED

1. A method for purifying heat shock protein complexes comprising the steps of:

adding a heat shock protein having at least one of the group consisting of peptides, polypeptides, denatured proteins and antigens associated therewith to a column containing an ADP matrix to bind the heat shock proteins complexes to the ADP matrix; and

adding a buffer containing ADP to the column to remove the heat shock protein complexes in an elution product.

2. The method of claim 1 further comprising the step of adding a purifying buffer solution to the column to elute proteins that do not bind with the ADP matrix.

3. The method of claim 1 wherein the solution containing heat shock protein complexes comprises a cell lysate.

4. The method of claim 1 further comprising the step of incubating the solution containing heat shock protein complexes at a temperature of 37 to 50°C. prior to adding the solution to the column to induce heat shock proteins present in the solution to bind to peptides, polypeptides, denatured proteins and antigens present in the solution to form heat shock protein complexes.

5. The method of claim 1 further comprising the step of adding ADP to the solution containing heat shock protein complexes prior to adding the solution to the column to induce heat shock proteins present in the solution to bind to peptides, polypeptides, denatured proteins and antigens present in the solution to form heat shock protein complexes.

6. The method of claim 1 further comprising the step of adding a buffer solution containing GTP to the column to elute proteins other than heat shock proteins that are loosely bound to the matrix.

7. The method of claim 1 further comprising adding purified heat shock proteins to the solution containing heat shock proteins prior to adding the solution to the column.

8. The method of claim 1 wherein the heat shock protein complexes include complexes in which the heat shock protein comprises one of the group consisting of hsp60, hsp65, rubisco binding protein and TCP-1 from eukaryotes; GroEL/GroES, Mif4, TCPalpha and TCPbeta from yeast.

9. The method of claim 1 wherein the heat shock protein complexes include complexes in which the heat shock protein comprises of one of the group consisting of hsp104, hsp105 and hsp110.

10. The method of claim 1 wherein the heat shock protein complexes include complexes in which the heat shock protein comprises one of the group consisting DnaK proteins from prokaryotes; Ssa, Ssb, and Ssc from yeast; hsp70, Grp75 and Grp78(Bip) from eukaryotes.

11. The method of claim 1 wherein the heat shock protein complexes include complexes in which the heat shock protein comprises one of the group consisting of hsp90, g96 and grp94.

12. The method of claim 1 further comprising the step of producing the heat shock protein complex by mixing a heat shock protein with a complexing agent selected from the group consisting of peptides, polypeptides, denatured proteins and antigens.

13. A method for synthesizing heat shock protein complexes comprising the steps of:

adding a heat shock protein to a column containing an ADP matrix to bind the heat shock protein to the ADP matrix;

adding a complexing solution comprising a complexing agent selected from the group consisting of peptides, polypeptides, denatured proteins and antigens to the column to form heat shock protein complexes with the heat shock protein bound to the ADP matrix; and

adding a buffer containing ADP to the column remove the heat shock protein complexes in an elution product.

14. The method of claim 13 further comprising the step of adding a purifying buffer solution to the column to elute proteins that do not bind with the ADP matrix.

15. The method of claim 13 wherein the complexing solution comprises a peptide mixture selected from the group consisting of cell lysates, membrane isolates, and protease treated cell lysates.

16. The method of claim 13 further comprising the step of incubating the solution containing heat shock protein complexes at a temperature of 37 to 50°C. prior to adding the solution to the column to induce heat shock proteins present in the solution to bind to peptides, polypeptides, denatured proteins and antigens present in the solution to form heat shock protein complexes.

17. The method of claim 13 further comprising the step of adding ADP to the solution containing heat shock protein complexes prior to adding the solution to the column to induce heat shock proteins present in the solution to bind to peptides, polypeptides, denatured proteins and antigens present in the solution to form heat shock protein complexes.

18. The method of claim 13 further comprising the step of adding a buffer solution containing GTP to the column to elute proteins other than heat shock proteins that are loosely bound to the matrix.

19. The method of claim 13 further comprising adding purified heat shock proteins to the solution containing heat shock proteins prior to adding the solution to the column.

20. The method of claim 13 wherein the heat shock protein complexes include complexes in which the heat shock protein comprises one of the group consisting of hsp60, hsp65, rubisco binding protein and TCP-1 from eukaryotes; GroEL/GroES, Mif4, TCPalpha and TCPbeta from yeast.

21. The method of claim 13 wherein the heat shock protein complexes include complexes in which the heat shock protein comprises of one of the group consisting of hsp104, hsp105 and hsp110.

22. The method of claim 13 wherein the heat shock protein complexes include complexes in which the heat shock protein comprises one of the group consisting DnaK proteins from prokaryotes; Ssa, Ssb, and Ssc from yeast; hsp70, Grp75 and Grp78(Bip) from eukaryotes.

23. The method of claim 13 wherein the heat shock protein complexes include complexes in which the heat shock protein comprises one of the group consisting of hsp90, g96 and grp94.